

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-16 (Cancelled)

Claim 17 (new): A bone growth-inducing composition, comprising an osteogenic protein, a carrier matrix and gelatine, the osteogenic protein being produced by enriching an osteogenic protein-containing fraction extracted from bone by a sequence of enrichment steps selected from the group consisting of ultrafiltration, chromatography and combinations of ultrafiltration and chromatography, and in which higher molecular weight components are removed from the osteogenic protein-containing fraction prior to the enrichment steps.

Claim 18 (new): The bone growth-inducing composition as claimed in claim 17, wherein the carrier matrix is selected from the group consisting of insoluble bone matrix, a biodegradable synthetic matrix and a synthetic inorganic matrix.

Claim 19 (new): The bone growth-inducing composition as claimed in claim 18, in which the carrier matrix is human insoluble collagenous bone matrix (hICBM).

Claim 20 (new): The bone growth-inducing composition as claimed in claim 17, wherein the gelatine is human gelatine.

Claim 21 (new): The bone growth-inducing composition as claimed in claim 17, in which the higher molecular weight components have a molecular weight of about 100 - 300 kDa.

Claim 22 (new): The bone growth-inducing composition as claimed in claim 21, in which the higher molecular components are selected from the group consisting of collagen, collagen fragments, collagen aggregates and mixtures thereof.

Claim 23 (new): The bone growth-inducing composition as claimed in claim 17, wherein the higher molecular weight components are removed by ultrafiltration.

Claim 24 (new): The bone growth-inducing composition as claimed in claim 17, wherein the osteogenic protein-containing fraction is concentrated and desalted through successive ultrafiltration steps.

Claim 25 (new): The bone growth-inducing composition as claimed in claim 17, wherein the composition is in the form of a hydratable powder.

Claim 26 (new): The bone growth-inducing composition as claimed in claim 17, wherein the carrier matrix is hICBM, the gelatine is human gelatine and the mass ratio between the osteogenic protein, the hICBM and the gelatine is in the range of 0.4 - 0.6: 800 - 1200:100 - 1000.

Claim 27 (new): The bone growth-inducing composition as claimed in claim 24, wherein the mass ratio is about 0.5:1000:200.

Claim 28 (new): A method of preparing a bone growth-inducing composition, the method comprising the steps of combining osteogenic protein, a carrier matrix and gelatine, the osteogenic protein being produced by enriching an osteogenic protein-containing fraction extracted from bone by a sequence of enrichment steps selected from the group consisting of ultrafiltration, chromatography and combinations of ultrafiltration and chromatography, and in which higher molecular weight components are removed from the osteogenic protein-containing fraction prior to the enrichment steps.

Claim 29 (new): A device for inducing bone growth in a mammal, the device comprising a syringe containing a bone growth-inducing composition as claimed in claim 17 in the form of a hydratable powder.

Claim 30 (new): A method of inducing bone formation in a mammal having a skeletal defect, the method comprising the step of implanting a bone-inducing composition as claimed in claim 17, into the skeletal defect of the mammal.

Claim 31 (new): A method of inducing the growth of ectopic bone in a mammal, the method comprising the step of implanting a bone-inducing composition as claimed in claim 17, in a non-bony site of the mammal.

Claim 32 (new): A method of accelerating allogeneic bone healing in a mammal, the method comprising the step of implanting allogeneic bone material together with a bone-inducing composition as claimed in claim 17, into a site in which allogeneic bone healing in the mammal is required.

Claim 33 (new): The method as claimed in claim 32, in which the allogeneic bone material is selected from the group consisting of human cortical bone chips, cancellous bone blocks, cancellous bone powder, whole bone and demineralised bone matrix.

Claim 34 (new): A method of accelerating autogenous bone graft healing in a mammal, the method comprising the step of implanting autogenous bone material together with a bone-inducing composition as claimed in claim 17, into a site in which autogenous bone graft healing in the mammal is required.

Claim 35 (new): The method as claimed in claim 34, wherein the autogenous bone material is iliac crest autogenous bone.